

## MSHA's Accident Prevention Program Innovative Products



## "Operator Restraint Systems"

Modular systems of padded restraining bars have been developed to keep equipment operators from being jostled in the cab of equipment that is subjected to unexpected, violent motion. The photograph shows an example of a simple system, but any cab design and seat type can be accommodated. The systems can be retrofitted, and do not hinder operation. The units can also be made so that the equipment won't operate unless the system is engaged, providing a "lockout" feature.

In a recent 5-year period, 45% of coal injuries and 34% of metal and nonmetal injuries incurred while operating a haul truck were caused by the operator striking the roof, door or other objects in the cab. The causes included:

- Being bounced in the cab while operating on rough or rockcovered haul roads.
- Being jostled when a larger than normal load is dumped into a truck bed, causing the truck to shake or rock unexpectedly and violently.
- Being jostled by an impact, such as by a bucket while being loaded, or by another piece of equipment (collision).
- Total or partial rollover.



Supplemental restraint devices may be a way of reducing the frequency or severity of these types of accidents. For information on manufacturers that are known to MSHA to have such products available, contact MSHA's Approval and Certification Center at 304-547-0400 or e-mail <a href="mailto:InnovativeProducts@dol.gov">InnovativeProducts@dol.gov</a>.

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